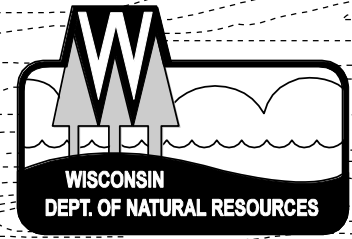


WISCONSIN WOOD

MARKETING BULLETIN



A Quarterly Newsletter Published by the Wisconsin Department of Natural Resources

Fall 2015

Wisconsin's Forest Resources

-Laura Lorentz, Forest Inventory Specialist

Have you ever found yourself looking for more information on current conditions of forest resources and the forest products industry in Wisconsin? Look no further than the Forest Resources Annual Report and Publications webpage:

(<http://dnr.wi.gov/topic/ForestBusinesses/publications.html>).

Among the resources available are Statewide Summaries, Species Summaries, and Special Topics reports. Statewide reports include an analysis of the state's forest resources, roundwood production and sales, and an overview of the forest products industry in Wisconsin. The Species Summaries highlight twenty-two of the most commonly utilized commercial species. Each species profile includes information on the volume, grade and distribution of the resource throughout the state, how fast it is growing, above ground biomass estimates, and trends in prices for cordwood and sawtimber.

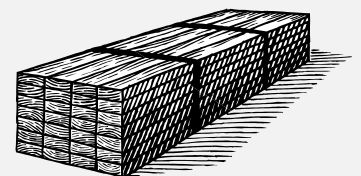
When inventory data reveal interesting trends in Wisconsin's forest resources, analysts explore them further and develop Special Topics reports. These pieces focus on a variety of issues such as the "[High Mortality of Red Oaks](#)" and "[Wisconsin's Young and Early Successional Forests](#)."

Each of these reports is produced annually by the Wisconsin Department of Natural Resources Division of Forestry, Forest Products Services Program and with the USDA Forest Service using data from the USDA Forest Inventory and Analysis (FIA) program and Timber Mart North.

If there are additional species or particular trends or topics that you would like to see reported on, please send your ideas and requests to Andy Stoltman, Rural and Urban Forest Inventory Analyst, at Andrew.Stoltman@wisconsin.gov.

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Industry Headlines

August housing report

The housing market is still facing a slow recovery as indicated by [housing data](#) through the month of August. Single family starts decreased 3% month to month yet were up 14% on a year to year basis. (*Dept. of Sustainable Biomaterials, Virginia Tech October 2015*)

Asia still proves to be a difficult market in the second half of 2015

Global markets are down through the first half of 2015 compared to the same period in 2014. In [SE Asia](#), hardwood lumber exports to countries including China, Vietnam, and Malaysia have declined while some increases were observed in Indonesia, Thailand, and Singapore. US lumber exports are still on pace to exceed \$2 billion this year, which would be the second highest year on record following last year (*American Hardwood Export Council*)

Paper tariffs—Canada

According to the US Department of Commerce, import duties for Canadian super-calendared paper to the US are set to increase. The final decision on this ruling will be made by the US Trade Commission in early [December](#) (*Reuters Online—October 2015*)

Wood reuse website

If you looking to find a reuse or to recycle old wood products lying around your shed or garage, go visit the reusewood.org website to find a new idea or a business that would recycle it. The American Wood Council and Canadian Wood Council have partnered with Building Materials Reuse Association to develop an online directory outlining reuse and recycling options.

Wausau Paper sold to SCA

Global hygiene and forest products company SCA will [acquire](#) Wausau Paper for \$513 million. Wausau Paper, with mills in Ohio and Kentucky, once operated three paper mills in Wisconsin (*Manufacturing Business Technology Magazine*)

Softwood Lumber Agreement

The Softwood Lumber Agreement expired on [October 12th](#), now there is uncertainty what is next. If higher duties are placed on Canadian producers to export to the US, an increase of lumber going to other export markets is likely. (*Forest2Market*)

Wisconsin county plans to remove 2,600 trees due to EAB

In response to EAB, Kenosha County will remove 2,600 [ash](#) trees this winter at four county parks and a golf course using mechanized harvesting. Costs with this system range from \$17-29 per tree compared to traditional tree removal systems which can often total \$500 or more per tree (*Minneapolis Star Tribune*)

Team Updates

Southeast District-*Scott Lyon*

The summer months were busy in the SE; I met with almost 200 school teachers near Milwaukee at a school forest in-service day to discuss Wisconsin-grown forest products. They took what they learned back to their students to promote this renewable resource. As you know, we all have been busy hosting forest economics workshops with DNR foresters and the forest products industry in our areas. Additionally, I worked with DNR regional urban forestry coordinators in my area to host a regional urban community network meeting with an urban wood company. This meeting allowed attendees from local government to learn how municipalities can work with local sawmills to promote a better use for urban wood than sending it to a disposal site.

In late September, I attended the North American Wood Window and Door Symposium at the USDA's Forest Products Lab in Madison. Several presentations included topics on new window and door manufacturing equipment and new product lines. It was interesting to learn that wood plastic composites for stiles and rails are starting to emerge in the US. In addition, another new process becoming more common is the use of acetylated wood in window and door applications. Acetylation increases the amount of naturally occurring acetyl molecules and reduces the amount of hydroxyls. Acetylation is great for outdoor applications; it improves the timber's durability, stability, and service life. Also, the typical [European window](#) is starting to pick up in sales for higher end architecture applications over use of the traditional "up and down" window commonly found in the US. Lastly, I have been out meeting with secondary wood products producers in my area. From what I hear, the markets for their products are picking up more than they have in the past few years. Remember, if you have any questions on forest products utilization and marketing or are looking for information on production process improvement, please feel free to reach out to one of us.

Southwest District-*Anna Healy*

I have been busy facilitating forest economics workshops for the DNR foresters in southern Wisconsin. The first week in October we had an excellent workshop at Bee Forest Products in Nelson. Also, a productive workshop was held with our partners at Rockbridge Sawmill in early November. The highlights of these days were many, but perhaps the most interesting conversations revolved around discussing the economics of accomplishing forest management, particularly from a logging operations perspective. Foresters also had the unique opportunity to see firsthand the forest products that are generated from three different log grades. We were also able to compare the prices these products are worth in the current market to the price paid for the logs.

Earlier in the summer I enjoyed teaching a Wisconsin Local Use Lumber Grading Course at the Kickapoo Reserve. I will be scheduling a recertification course for those who have taken the course more than five years ago and would like to update their certification. The process of conducting a survey of secondary wood users in my area continues. I am trying to focus on the use of small diameter and underutilized species. I will have more on both of these topics in the next bulletin.

Northern District -*Collin Buntrock*

The forest products sector has encountered some ups-and-downs over the summer months. Domestic and international demand, raw material supply, volatile weather, and skilled labor issues in the manufacturing sector continue to have an impact on markets to varying degrees. Since last quarter, I have been handling information and technical requests and have given several presentations involving Wisconsin's forest products sector. This summer, I assisted a local county economic development group with a needs assessment for (Con't on page 4)

(Con't from page 3) wood using businesses in their respective county. We conducted a series of interviews with timber producers, truckers, and mill managers to gauge some of the major barriers and opportunities the industry faces at the local level. Not surprising to many was the re-iteration of the importance of retaining younger generations in the area after schooling, with a particular emphasis on the awareness of careers in their local forestry sector.

In the field, we have received several inquiries about drying whiter, brighter maple. The general kiln schedule in the Kiln Operator's Manual targets an initial dry bulb of 130°F for 4/4 hard maple. This temperature may lead to discoloring, especially in thicker stock, because these schedules were developed to be conservative in nature due to the variations that existed in early kiln models. Updated schedules have been developed which use lower temperatures, and when coupled with higher air velocities can produce whiter, brighter maple. Please feel free to contact one of us if we can be of any assistance.

What to do with Urban Wood: A Symposium on Large Scale Urban Tree Removal & Utilization

-Scott Lyon, FPS Specialist

The urban wood market will be heating up this winter in Kenosha County. On January 7, 2016, WDNR, Sustainable Resources Institute, and Kenosha County Parks will be hosting a symposium on urban wood utilization at the Somers Town Hall in Somers, WI. With the increase of trees killed by invasive insects and disease, municipalities are trying to find alternative uses for urban wood materials rather than disposal in a landfill.

The meeting will provide attendees the opportunity to learn about current urban wood utilization efforts, urban tree removal options, markets for urban wood, and participate in a panel discussion on the Kenosha County Parks Tree Removal Project. In the afternoon, attendees will get to observe urban tree felling and removal operations with mechanized logging equipment. In Wisconsin, this type of equipment has been used to remove large amounts of trees in several communities. For example, mechanized logging equipment was used to remove trees infected and potentially impacted by the Emerald Ash Borer in the city of Oak Creek, and another removal project with cottonwoods in Winnebago County. Mechanized removal is one of the safest and most efficient tree removal methods and often a low cost option to remove a large number of urban trees under the right circumstances.



Mechanized logging at a Winnebago County Park (Author's photo)

Who should attend?

- Municipalities unfamiliar with large scale urban tree removals
- Timber producers looking to expand into large scale urban tree removals
- Urban wood companies looking to learn about new markets and uses
- Traditional forest products companies considering using urban wood as a resource

If interested in attending, please visit the following link to learn more about the symposium: <http://www.sustainableinc.org/events.html> . If you would like to register please contact Kari at: kari@sustainableinc.org

Three simple tips to reduce drying defect in lumber

-Collin Buntrock & Scott Lyon, FPS Specialists

Drying lumber is important process for many wood products companies regardless of their size of operation or products manufactured. Drying can be an important mechanism to combat a lower return on investment caused by excessive inventory and can also open up new markets that deliver higher returns.

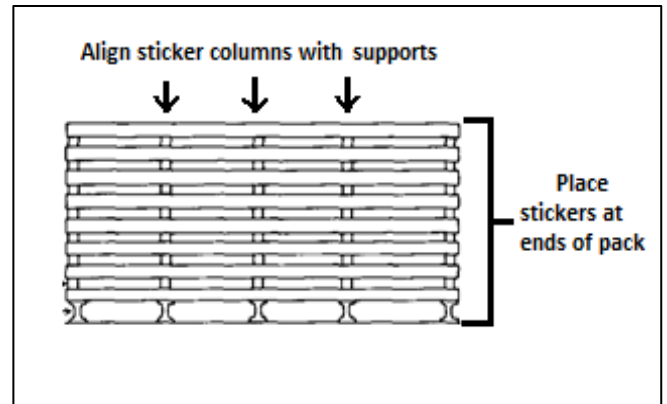
Below, you will find three simple tips that can improve your bottom line by reducing the amount of degrade in your lumber.

1.) Box pile with random lengths

When stacking and stickering random lengths of lumber, some end checking and warp can be eliminated by box piling lumber instead of even-end piling. When box piling, full length pieces should make up the bottom layers (each layer is called a course) of each pack. Full length pieces should also be placed on the edges as well as the middle of each course. Shorter pieces are then staggered between the full length pieces. Stickers should be placed the far ends of each course and each stick column should be aligned on-center with underlying bolster supports. Box piling also better utilizes space compared to even-end piling, which improves drying the efficiency of a kiln operation.



The practice of even-end piling is generally not recommended
(Photo by Travis Allen)



Proper sticker alignment is critical to reduce warp and other drying defects (Author's figure)

2.) End coat lumber

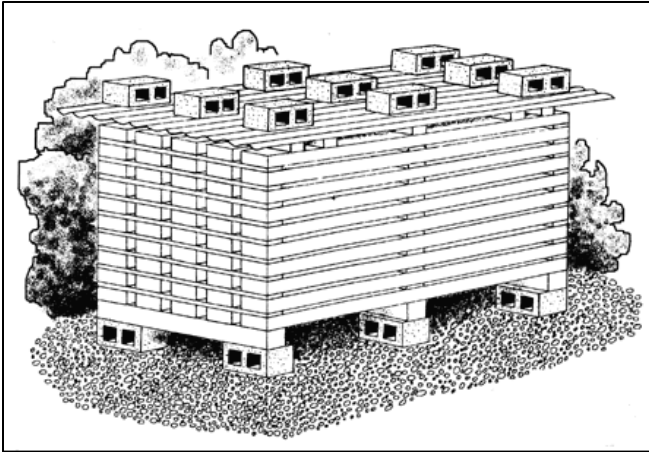
End coating is an easy step process to add value to lumber. Green lumber should be end coated with a commercial end coating immediately after sawing to prevent end checking and splits. End coating slows the amount of moisture loss and reduces drying defects. It has been found, that end coating lumber after it has begun to dry or started to end check is not effective in reducing additional drying defects. Commercial end coating is typically a wax mixture that is applied either by a brush or spray gun. Some thin kerf band mill users found it useful to use latex paint as an end coating substitute instead of the commercial product. However, it is important to apply a thick coat in order to insure a proper seal to prevent degrade.

End coating fresh cut logs, as well as any part of the log that is missing bark within 24 hours is important first step to prevent checking, splits, and even sap stain. Sawing logs as soon as possible after felling is very important to reduce drying defects and sap stain. In the summer months, logs should be processed within 15 days and other times of the year within 30 days. If logs need to be stored for a period of time, logs should be piled on a dry, flat location, and positioned east to west to allow air to move freely through the stack.

(Con't on Page 6)

3.) Cover and add weight to lumber stacks

Air drying lumber has many advantages such as reducing time and energy in a conventional steam kiln, but one disadvantage is the exposure to elements such as sun, rain, and snow. Exposure to weather can cause drying defects proper care is needed. Using a pile roof will help protect the lumber stack from the elements and reduce checking and warp. A roof can be constructed by some sort of waterproof paper such as building paper or roll roofing, or metal sheeting and weighted down by cement blocks (Figure 3). Also, a roof can be



Using a roof while air drying protects stacks from the sun and rain
(Univ. of Kentucky Extension)

constructed into a panel when combining low value lumber and roll paper. In order to minimize drying defects, proper air flow is needed between the roof and top layer of lumber. Adding weight to either a lumber stack in a kiln or air drying yard is important to reduce warp by keeping the boards flat.

Using an open shed or t-shed to air dry more valuable lumber has become popular over the last few decades. Shed drying saves time to reach your final moisture content, energy, and also protects lumber from weather by having a permanent roof. The sheds are open on all sides to allow air flow to pass through the lumber packs. In order to prevent drying defects, a shade curtain can be added to sheds to reduce sun exposure and wind flow.

Conclusions

Drying lumber can be very complicated; however by following these simple steps you can add value to your lumber and also reduce the time and energy it takes to achieve your desired moisture content. If you have any questions regarding drying please don't hesitate to contact one of us.

Photos from the Field



Left: An attendee box piles lumber at an industry kiln drying course held in Antigo (Photo by Collin Buntrock)



Center: Staining resulting from Columbia timber beetle damage (Photo by Linda Williams)



Right: Steve Hubbard FPS Team Leader and Rusty Damm, USFS National Forest Products Specialist at the past Sawing, Edging, and Trimming Workshop at Menominee Tribal Enterprises (Photo by Collin Buntrock)

Powder Post Beetles

-Phil Pellitteri, UW Insect Diagnostic Lab

Powder post beetles attack porous hardwoods such as oak, walnut, mahogany, hickory and maple. Unheated buildings, very damp basements, barns, seasoned firewood, and lumber stored outdoors are most often attacked. Indoors, beetles can be found infesting hardwood flooring and trim, barn boards, rough-sawn timbers, furniture, tools and picture frames. Powder post beetles require a number of years to do significant structural damage. Wood infested with powder post beetles contains many round holes (called shot holes) that are $\frac{1}{32}$ to $\frac{1}{8}$ inch in diameter. These holes are adult emergence holes and cause cosmetic damage to finished wood surfaces. A fine dust-like powder (similar to talcum powder) is pushed from the holes and often is the first sign of attack. Finding wood with holes does not mean the beetles are still infesting the wood. The loose powder in feeding tunnels can sift out long after an infestation has died out. Take time to properly assess the problem and possible treatments.

Life cycle: Adults are small, chestnut colored beetles that lay eggs in the pores of wood. Grubs develop and bore into the wood, taking a year or more to mature. Adults leave small ($\frac{1}{32}$ to $\frac{1}{8}$ inch diameter), round emergence holes when they leave the wood, generally in April or May. Powder post beetles are common in dead trees and can be found in seasoned firewood.



Control: Proper kiln drying will kill powder post beetles. However after drying, low moisture wood can become infested in storage if not protected.

Treated lumber is protected from powder post beetles. Recycled barn boards and beams should be examined carefully before installation. Some insecticides are registered for treating powder post beetle-infested wood. These insecticides can be sprayed or painted on the surface, but often have an odor and need to be tested for staining. Annual treatments may be needed for two to three years, as these products only cover the wood surface. A borate wood treatment is an alternative to insecticides that can be applied commercially or as a do-it-yourself project. Borate products (e.g., sodium octaborate; TIM-BOR, BORACARE, or PENNETREAT) are stomach poisons and kill any insects that feed on treated wood. These treatments are usually less toxic, have less odor and last much longer than insecticide treatments.

Borates can be applied by spraying, soaking, or painting unfinished surfaces, and they diffuse into the wood as it dries. Wood that is painted or sealed needs to be stripped prior to treatment to allow the borates to soak into the wood. For outdoor use, borates must be sealed into the wood or they can leach out with high amounts of moisture. Look for borate products at lumber yards, log home supply companies, or on the internet. Infested wood can be also fumigated, but this treatment requires professional help, is expensive, and does not protect the wood after treatment. Once a surface is sealed, or painted, powder post beetles cannot infest the wood.

For small objects such as picture frames, freezing will control powder post beetles problems, if the object is taken from a warm, active state and placed at 10°F or colder for three days. Warming the object up for 48 hrs or more and then re-freezing improves control. The sudden shock of the temperature change more than the cold kills the beetles. For other wood items (e.g., newly installed trim), replacement may be the most cost effective management strategy.



(Republished with permission, *UW-Extension Garden Facts* publication #XHT1053)

Forest Service Seeks to Expand Wood Product Markets

Support Job Creation and Reduce Wildfire Threat

WASHINGTON, Oct. 20, 2015 — The U.S. Forest Service today announced that it is seeking proposals for projects to expand wood energy and wood products markets that support sustainable forest management, especially in areas with high wildfire risks. Grants will be made through the agency's Wood Innovations program.

"Forests on public and private lands face an increasing threat of catastrophic wildfires as vegetative fuels build to unprecedented levels," said Forest Service Chief Tom Tidwell. "The grants provided through this program not only help reduce hazardous fuels and improve forest health, but also create jobs to promote economic vitality in our communities."

For Fiscal Year 2016, the program will invest up to \$5 million in projects designed to have a long-term impact on the National Forest System and other forested lands by leveraging the market for low value wood.

Funding is available for a diverse range of activities, from completion of a final engineering design for a renewable wood energy system to a demonstration of wood as a primary building material in commercial construction. Funding may also support business planning and other efforts to accelerate the manufacturing, market adoption and demonstration of innovative wood products.

Since 2005, more than 200 grants have been awarded to small businesses, non-profits, Tribes, States, and local governments to improve forest health while creating jobs, renewable energy and healthy communities. Since 2013, this funding has also helped establish 20 Statewide Wood Energy Teams and five Statewide Wood Utilization Teams that collectively expand and support wood energy and wood products markets.

The deadline for proposals is Jan. 15, 2016. Information on how to apply is available in the [Federal Register Notice](#).

The mission of the [U.S. Forest Service](#), part of the U.S. Department of Agriculture, is to sustain the health, diversity and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The agency manages 193 million acres of public land, provides assistance to state and private landowners, and maintains the largest forestry research organization in the world. Public lands managed by the Forest Service contribute more than \$13 billion to the economy each year through visitor spending alone. Those same lands provide 20 percent of the nation's clean water supply, a value estimated at \$7.2 billion per year. The agency has either a direct or indirect role in stewardship of about 80 percent of the 850 million forested acres within the U.S., of which 100 million acres are urban forests where most Americans live.

USDA is an equal opportunity provider, employer, and lender. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cust.html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

Did You Know? October 18th – 24th, 2015 was National Forest Products Week. This week-long recognition occurs annually beginning on the third Sunday in October. Read the official White House proclamation [here](#).

Training/Meeting Calendar:

Wisconsin Local-Use Dimension Lumber Grading Short Course

When: February 22nd, 2016

Where: DNR Service Center
2984 Shawano Ave.
Green Bay, WI 54313

Cost: FREE

Registration: Send an email with your name, address, telephone phone number to tammy.sykes@wisconsin.gov. Please send questions to collin.buntrock@wisconsin.gov.

What to do with Urban Wood: A Symposium on Large Scale Urban Tree Removal & Utilization

When: January 7th, 2016

Where: Somers Town Hall
7511 12th St.
Somers, WI 53171

Cost: \$20.00

Registration: www.sustainableinc.org/events.html

Lake States Lumber Association Winter Meeting

When: January 14-15th, 2015

Where: Green Bay, WI

Cost: TBD

Registration: More info will be posted soon at www.lsla.com

Classifieds:

TIMBER AND FOREST PRODUCTS

WANTED—Firewood: oak, birch, hickory, cherry, split, delivered.

Contact Hager's Country Market, 344 West Main, Barrington, IL 60010 (847) 381-0699.

WANTED— Veneer logs – hard maple, red maple, black and white ash, white and yellow birch, red oak, white oak, basswood, butternut and walnut. Contact Ted Fischer, IKE International Corporation, 500 Maple East Street, Stanley, Wisconsin 54768 Phone: (715) 644-5777 Cell: (715) 577-7975 FAX: (715) 644-5786
E-mail ted.fischer@ikeinternational.com

EQUIPMENT/SERVICES/EMPLOYMENT

FOR SALE— EQUIPMENT

ANTON BILLERIC – horizontal borer – multiple cluster bits; FOUR BAGGER – dust collector – (4) bags & (4) lower bags; HEMPLE – tracing lathes and sander; CMS – CNC – (30 head turret) carving/milling machine; SHODA – CNC (12 head) twin table router; SCHIAVI- 5" X 7" feed thru moulder (6) heads; WEINIG-U 22 5" X 9" feed thru moulder (8) heads; NORTHFIELD – 24" carbide planerwith knife grinder; NORTHFIELD – 12" heavy duty jointer; SCMI – (3) stations, disk sander, spindle sander, horizontal belt sander; TAGLUABLE – 42" (2) head wide belt sander – drum and platen; TRI STATE – 36" band resaw; TRI STATE – under-cut chop saw; MATTISON – straight line rip saw, model #202 and #404; BALLISTRINE MIMI-C linear profiler,/shaper-twin 10 hp; WADKIN – single end tenoner, model ECA; NEWMAN WHITNEY planer double S-282; LUMBER break down/sorting line-150' long; CUMMINS diesel generator set – 75KVA (400 hours).

Contact Fred Janik, 6881 Minnick Road, Lockport, NY 14094, (716) 433-4224

If you want to list items, fill in the form below and mail to the following address:

Wisconsin Wood Marketing Bulletin

Attn: Phyllis Ziehr

3911 Fish Hatchery Road

Fitchburg, WI 53711

FOR SALE

☐ Forest Products

☐ Equipment

WANTED TO BUY

☐ Forest Products

☐ Equipment

SERVICES

☐ For Sale

☐ Wanted

EMPLOYMENT

☐ Available

☐ Wanted

Name _____ Date _____ Phone: (____) _____

Address _____ City _____ Zip Code _____



For More Information Contact:

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The Wisconsin Department of Natural Resources reserves the right to edit all items included and accepts no responsibility for the accuracy of description or for the commercial integrity of the persons or firms making offers in this Bulletin.

If you wish to use the facilities of the Bulletin, forward a letter, post card or form on page 7 with detailed description of your "wanted" or "for sale" items. All forest products (stumpage, logs, pulpwood, posts, poles, trees and lumber, etc.) and services (custom sawing, custom kiln drying and tree planting, etc.) may be listed. Please be sure your full name, address (including zip code), telephone number accompany your listing, there is no cost for listing any items. If you want items repeated in the next issue, send in a written request. If you have comments about the Bulletin or have suggestions on its content, write to: Collin Buntrock, 107 Sutliff Ave. Rhineland, WI 54501 phone (715) 365-4704

DEADLINE FOR ITEMS TO BE LISTED IS THE 20TH OF: MARCH, JUNE, SEPTEMBER, and DECEMBER.